REMARKS

Claims 1-5 are pending in the application. Claim 1 is amended to clarify that the base screen comprises first through fifth layers. Support for this amendment may be found in claim 1 as originally filed. Claim 4 is amended to correct a typographical error identified by the Examiner in the Objection to the Claims. No new matter is added.

Objections to the Specification

The specification is objected to over the length and language of the abstract. The abstract is amended to contain fewer than 150 words in accordance with the Examiner's objection. No new matter is added.

Claims Rejections 35 U.S.C. 103

Claims 1-5 are rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over EP 1,147,722 A1 in view of WO 03/020072 and further in view of Bazin 2002/0090123. For ease of reference, US 6,719,565 (Saita) is used in place of EP 1,147,722 A1 and US 2004/0239689 (Fertig) is used in place of WO 03/020072. The Examiner's rejection has been carefully considered.

Regarding claim 1, the Examiner asserts that Saita discloses a base screen having first through fifth layers in reference FIG. 6. FIG. 6 in Saita, however, clearly shows a screen having 6 different display sections (i.e. locations on the screen), as opposed to a plurality of layers comprising first through fifth layers or, in other words, layers in one screen location, as presently claimed and shown in FIG. 3 of the present specification. The layering methods requiring the first through fifth layers are described on pages 7-8 of the present specification and involve the superimposition of multiple images having different transparencies. Saita does not teach or suggest a monitor or

screen having a plurality of layers comprising first through fifth layers as recited in claim 1 (i.e. first through fifth layers in the same location on the screen) that would allow superimposition as described in the present specification.

The rejection of claim 1 cites column 1, lines 61-64 in Saita as disclosing a hair color data storage section recording RGB values of each of original hair colors to be subjected to hair coloring. The system taught by Saita, however, does not involve such a database. An image of the hair to be colored is generated using, for example, a digital camera. There is no selection or choice involved regarding the original color of the hair before hair coloring, only the choice of a target hair color after coloring. The hair color data storage section recording RGB values of each of original hair colors to be subjected to hair coloring recited in claim 1 is required to input a choice of one hair color from the original hair colors (before dying). Saita does not teach or suggest a stored database of original hair colors or receiving an input choice of original hair color. Fig. 8 in Saita confirms that the input is an image and not a selection from a database. Similarly, Saita does not teach or suggest a database that stores hairline data that can be selected. Rather, Saita uses a masking technique to identify hairlines in images.

The Examiner states that Saita does not disclose:

a second input section for receiving an input of choice of two hair color preparations from the hair color preparations recorded in the hair color preparation data storage section together with mixing ratio of the selected hair color preparations

a first image displaying section displaying the hair line with the predetermined transparency on the first layer of the base screen according to the image data recorded in the hair line data storage section;

a second image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color without transparency on the fifth layer of the base screen based on the input received at the first input section;

a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and

displaying the colors of the selected two hair color preparations with the transparency corresponding to the selected mixing ratio thereof on the third and fourth layers of the base screen, respectively based on the input received at the second input section; or

a fourth image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color with the predetermined transparency on the second layer of the base screen based on the input received at the first input section.

The Examiner asserts that Fertig teaches a second input section for receiving an input of choice of two hair color preparations from the hair color preparations recorded in the hair color preparation data storage section together with mixing ratio of the selected hair color preparations in paragraph 0017, lines 3-11. Fertig teaches a system in which real time images, rather than still photographs, are used during hair coloring consultation. Paragraph 0017 teaches that a hairdresser may have a separate monitor from the client and that the monitor may display a color palette of target hair colors. Neither Saita nor Fertig, however, teach or suggest using binary mixtures of hair colors with mixing ratios for the two colors.

Saita does not teach or suggest a monitor or screen having a plurality of layers comprising first through fifth layers, a stored database of original hair colors or receiving an input choice of original hair color, or a database that stores hairline data. Fertig does not teach or suggest a second input section for receiving an input of choice of two hair color preparations from the hair color preparations recorded in the hair color preparation data storage section together with mixing ratio of the selected hair color preparations. Consequently, it would not have been possible for one of ordinary skill in the art at the time that the invention was made to combine Saita and Fertig and produce the presently claimed invention.

The Examiner states that Saita in view of Fertig do not teach
a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and

displaying the colors of the selected two hair color preparations with the transparency corresponding to the selected mixing ratio thereof on the third and fourth layers of the base screen, respectively based on the input received at the second input section; or

a fourth image displaying section retrieving the RGB value of the selected hair color from the hair color data storage section and displaying the selected hair color with the predetermined transparency on the second layer of the base screen based on the input received at the first input section.

Bazin, paragraph 0015, lines 16-22 and FIG. 5, labels 21 and 22 are cited by the Examiner as teaching a third image displaying section retrieving the RGB values of the selected two hair color preparations from the hair color preparation data storage section and displaying the colors of the selected two hair color preparations with the transparency corresponding to the selected mixing ratio thereof on the third and fourth layers of the base screen, respectively based on the input received at the second input section. The cited sections of Bazin teach a definition for "varying degrees" as used in the reference patent and the scrolling a sequence of images having varying degrees of typological features. Bazin does not teach or suggest the display of any layered images, but rather the sequential viewing of distinct images. Bazin does not teach or suggest the storage of hair color preparation data or of mixing ratios associated with hair colors.

The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the invention of Saita in view of Fertig and in further view of Bazin to observe the effect of changing the mixing ratio of colors by moving the slide bar in Bazin FIG. 5 toward one color image or the other. Selected specific failings of each of the cited references to teach or suggest elements recited in the present claims are argued herein. Additionally, Saita and Fertig both disclose inventions related to hair coloring and associated systems and methods. Bazin discloses an invention relating to the analysis of typological characteristics of the body to establish a diagnosis. One of ordinary skill in the art of hair dressing would not have been motivated, at the time that the invention was made, to modify a hair color

consultation system to incorporate elements of a medical diagnostic system to produce layered display data for hair dyes mixed in different ratios with different transparencies.

Regarding claim 2, Saita column 2, lines 4-9 and FIG. 6 are cited as disclosing a base screen displayed by the base screen displaying section has an intermediate layer between the first and second layers, and the color simulation system further comprises a second hair line data storage section recording image data of second hair line which is different from the hair line recorded in the hair line data storage section in line pattern and color, and a fifth image data displaying section displaying the second hair line with the predetermined transparency on the intermediate layer of the base screen according to the image data recorded in the second hair line data storage section.

Saita does not disclose layering of images, but rather the generation of a simulated image having a selected hair color. Column 2 discloses (i) an image memory means into which image data is input and stored, (ii) a processing means that finds the hair area in the input image and builds a simulated image in which the hair area is changed to any color, and (iii) a monitor on which the input image and/or the simulated image are displayed. No layering of images, as recited in the present claims and described in the present specification, is disclosed in Saita.

The Examiner asserts that it would have been obvious to recognize the fact that the computer system of Saita would first store the second hair line image data separately from the original image data before displaying the second hair line image. This argument is counter to the teachings of Saita, however, because hair lines are not modified. Instead, methods are described for achieving an accurate hair line so that only areas of hair in the original image are changed in color.

Regarding claims 3-5, the Examiner cites Bazin, paragraph 0015 and FIG. 6 and states that it would have been obvious to modify Saita and Fertig to include two display regions in order to indicate to the user the deeper color in one region and the lighter color in the other region to allow the user to adjust the mixing ratios of the colors

depending on the desired result. None of the cited references, however, teach or suggest mixing colors or databases of colors and mixing ratios. Bazin teaches the sequential viewing of images showing varying degrees of typological characteristics to aid in a diagnosis but not mixing of colors in different ratios to achieve a desired result for hair color. Consequently, no combination of the cited references produces ahair color simulation system as presently claimed.

In view of the foregoing arguments, applicant respectfully requests that rejection of claims 1-5 under 35 U.S.C. 103 be withdrawn.

Conclusion

The application in its amended state is believed to be in condition for allowance. Action to this end is courteously solicited. Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,

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